

SEAHG MEETING TO DEVELOP AMP SOCIOECONOMIC PROGRAM

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**FINAL SEAHG DRAFT SE INFORMATION NEEDS
AND IMPLEMENTATION PLAN
RECOMMENDATIONS TO THE TWG**

**ADAPTIVE MANAGEMENT WORK GROUP
MEETING**

FEBRUARY 22-23, 2012

PHOENIX, ARIZONA

Charge to SEAHG

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- Complete 1st draft of socioeconomic INs by 9/15/11
- Review draft INs with TWG in October, 2011
- Prepare final draft list of SE INs by 10/31/2011; (11/2/2011 SEAHG mtg.)
- Prepare draft list of SE INs and program elements by 11/31/2011 (11/14/2011 SEAHG mtg.)
- 12/2/2011 SEAHG final review of draft SE program elements related to INs (12/8/2011 SEAHG mtg.)
- 1/23/2012 SEAHG release of draft SE INs and implementation plan to TWG
- 2/2/2012: SEAHG final review by TWG
- 2/22-23/2012: SEAHG review by AMWG

SEAHG Members

- Cliff Barrett
- Shane Capron
- Jerry Lee Cox
- Helen Fairley
- Leslie James
- Don Ostler
- Clayton Palmer
- David Slick
- Jason Thiriot
- Dave Garrett; Co-Chair
- David Harpman; Co-Chair
- Jan Balsom
- McClain Peterson
- Nikolia Ramsey
- Jerry Myers
- Ted Kowalski
- John Jordan

Information Used for SEAHG Report on Final INs, Program Elements, Costs, Etc.

- SEAHG development of Table 3 (Draft INs, program elements, costs; 1/31/10)
- SIAHG development of New Recreational INs (7/31/11)
- SEAHG development of New Hydropower INs (9/30/11)
- Multiple draft SEAHG reports/PPTs on INs and Program Elements for TWG and SEAHG mtgs. held 10/20/11, 11/2/11, 11/14/11, 12/8/11, 2/2/12

PROPOSED AREAS OF ADDITIONAL SEAHG, GCMRC, TWG ACTIVITY

- CONDUCT NON-MARKET/NON-USE VALUATION WORKSHOP FOR AMP
- FOR PROPOSED SE PROGRAM ELEMENTS EVALUATE POTENTIAL SE INFORMATION EFFECTIVENESS AND AREAS OF USE BY AMP
- EVALUATE PRIORITIES FOR PROPOSED INFORMATION NEEDS AND PROGRAM ELEMENTS BASED ON SPECIFIC CRITERIA, I.E. TIMING OF NEEDS, COSTS, UTILITY TO AMP, ETC.

SEAHG ACCOMPLISHMENTS

- FINAL REPORT WITH TABLE 1 OF INs AND PROGRAM ELEMENTS AND TABLE 2 SPECIFYING APPROACHES TO PROPOSED PROGRAM IMPLEMENTATION 2012-2015
- PPT WHICH OUTLINES TIMELINE OF PROGRAM ACTIONS TO RESPOND TO INs AND PROGRAM ELEMENTS FOR RECREATION, HYDROPOWER, WATER, CULTURAL RESOURCES AND GENERAL INFORMATION

Table 2: Proposed Socioeconomic Implementation Plan Elements: FY 2012

- Row: 1
- Activity: Workshops on assessing proposed socioeconomic information merits and use in AMP Decisions
- Cost: TBD
- IN: GIN 1&2. Evaluate merits of proposed SE Info and areas of use by the AMP

Table 2 Cont': FY 2012

- Row 2
- Activity: Define parameters and procedures for operational Base Case and Change Case Analyses for Hydropower; Proposed Base Cases, MLFF and pre-ROD
- Cost: TBD
- IN: HIN 1: Define potential hydropower customer impacts of ROD and other flow operations, segregating out other impacts such as changes in the power market

Table 2 Cont; FY 2012

- Row 3
- Activity: Develop modeling and analysis approaches to conduct Base Case and Spill-over analyses
- Cost: TBD
- IN: HIN 1 & 2: Develop modeling and Analysis approaches to determine power customer impacts of proposed flow operations. Approach to Specify impacts to marketable capacity and energy of increasing daily fluctuations and up and down ramp limits and raising maximum flow limit above 25,000 and minimum below 5,000

Table 2 Cont': FY 2013

- Row 4
- Activity: Non-use workshop with updates to 1994 Non-use survey and questionnaire.
- Cost: TBD
- IN: GIN 1 & 2. Conduct for the AMP a non-market/non-use values workshop. Incorporate guidance to approaches for CRIN 1, HIN 3-6 and RIN 1-2.

Table 2 Cont': FY 2013

- Row 5
- Activity: Scoping only: Identify tribes and study needs for specific preference and attitude surveys; evaluate focus group use
- Cost: \$5,000
- IN: CRIN 1. Initial scoping to define preferences/social values to address market/non-market values for resources valued by tribes and affected by dam operations

Table 2 Cont': FY 2013

- Row 6
- Activity: Complete analysis of recreation expenditures in CRE and the Diamond Creek to Mead reach (Part A, Market), and initiate recreation, survey instrument development for non-market assessments (Part B, Non-Market). Initiate water and power non-market survey instrument development
- Cost: \$150-\$200 K
- IN: RIN 1; HIN 3-6. Develop market, non-market and non-use recreational values for CRE and reach to Lake Mead including all boating, fishing, hiking, camping and related tourism components. Develop market, non-market, non-use values for water and power.

Table 2 Cont': FY 2013

- Row 7
- Activity: Conduct pre-defined economic modeling and analysis procedures with specified parameters to determine hydropower impacts of specified base-case and change case flow operations
- Cost: TBD
- IN: HIN1 & 2. Define hydropower customer impacts of ROD and other flow operations. Specify impacts to marketable capacity and energy of increasing fluctuations and up and down ramp limits and raising maximum flow limit above 25,000 CFS and minimum below 5,000 CFS.

Table 2 Cont': FY 2013

- Row 8
- Activity: Upon completion of power analysis (FY 2012/2013) conduct WECC analysis and other needed economic analysis to evaluate inter-regional customer hydropower impacts
- Cost: TBD
- IN: HIN 1&2. Define hydropower customer impacts of ROD and other specified flow operations. Specify impacts to marketable capacity and energy of increasing fluctuations and up and down ramp limits and raising maximum flow limit above 25,000 CFS and minimum below 5,000 CFS.

Table 2 Cont': FY 2014

- Row 9
- Activity: Complete non-market survey assessments for evaluating specified recreational non-market values from GCD to Lake Mead (Part B, Non-Market Studies). Complete specified water and power non-market value assessments.
- Cost: \$150-\$200K
- IN: RIN 1 & 2 and HIN 3-6: Assumes initiation and partial completion of market value assessments of RIN 1 in 2012/13 and initiation and partial completion of HIN 1 & 2. Conduct non-market /non-use and value assessments of recreation and wilderness resources in CRE and to Lake Mead. Define and value key attributes and benefits affecting Grand Canyon wilderness and Glen Canyon recreation experiences, i.e. how do they affect market, non-market, and non-use values for different activities and how do they differ under differing flow regimes and events and differing management actions. Conduct non-market and non-use valuations for hydropower and water resources as related to specified AMP goals and programs.

Table 2 Cont': FY 2014

- Row 10
- Activity: Develop OMB clearance and survey instruments that assess tribal values affected under differing dam operations. Assumes completion of scoping project with tribes on preferences and social values
- Cost: \$40,000
- IN: CRIN 1: Define market, non-market and non-use values for CRE tribal resources affected by dam operations

Table 2 Cont': FY 2014

- Row 11
- Activity: Complete OMB clearance for pilot non-use survey schedules for focus group use in recreation, water and hydropower non-use value assessments
- Cost: \$20,000
- IN: RIN 1 & 2; HIN 3,4,5 & 6. Develop market, non-market, non-use values for recreation, water and hydropower resources.

Table 2 Cont': FY 2015

- Row 12
- Activity: Conduct market, non-market, non-use value assessments of resources valued by tribes
- Cost: \$100,000
- IN: CRIN 1: Define market, non-market, non-use values for CRE resources valued by tribes as affected by dam operations

Table 2 Cont': FY 2015

- Row 13
- Activity: Pilot recreation, water and hydropower non-use surveys with focus groups, revise and initiate OMB clearance for survey implementation
- Cost: \$200,000
- IN: RIN 1&2, HIN 3-6. Define recreation, water and hydropower non-use values for CRE affected by dam operations

Table 2 Cont': FY 2015

- Row 14
- Develop real time decision support spreadsheet for all defined resource impacts from alternative management actions
- Cost: \$50-\$100K
- IN: GIN 3 & 4. Determine methods to assist more real time assessments of resource impacts of alternative management activities and evaluate as needed other market, non-market and non-use resource impacts as defined in the future.

Table 2 Cont': FY 2016

- Row 15
- Activity: Conduct full non-use value surveys for recreation, water and hydropower
- Cost: \$500,000
- IN: RIN 1&2 and HIN 3-6. Define non-market/non-use values impacted by dam operations for recreation, water and hydropower resources.

Table 2 Cont': FY 2016

- Row 16
- Activity: Implement Core Monitoring Plan for Socioeconomics
- Cost: TBD
- IN: Develop Core Monitoring Information Needs (CMINS)

SA COMMENTS ON SOCIOECONOMIC PROGRAM IN 2011/12 BIENNIAL PLAN

- SE PROGRAM SHOULD OBTAIN IN NEAR TERM AT LEAST COARSE ANALYSIS OF MARKET/NON-MARKET VALUES FOR RESOURCE IMPACTS UNDER PROPOSED FLOW AND MANAGEMENT OPTIONS
- AS INITIAL STEP FOR SE PROGRAM
- WOULD ASSIST EIS/LTEMP PROCESS
- WOULD ASSIST SE PROGRAM IMPLEMENTATION

UTILIZE EXISTING KNOWLEDGE AND EXPERT PANELS TO DEVELOP COARSE ANALYSIS

- SPECIFY GENERAL MANAGEMENT ACTIONS ANTICIPATED AND POTENTIAL BIOPHYSICAL IMPACTS
- CONDUCT STATUS OF KNOWLEDGE REVIEW OF POTENTIAL ECONOMIC IMPACTS THROUGH SCIENCE AND MANAGEMENT LITERATURE AND DATA
- CREATE EXPERT PANEL TO EVALUATE AND PROVIDE VALIDATION TO A RANGE OF POTENTIAL IMPACTS EXPECTED
- USE FIRST PANEL AND SELECTED SECOND PANEL IN DELPHI PROCESS TO FURTHER VALIDATE FINDINGS; PRODUCE REPORT ON PROCESS AND FINDINGS
- FORMAL REVIEW OF FINDINGS